Universiti Teknologi MARA

Biometric Recognition System for UiTM Melaka Student's Campus Entrance

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SUPERVISOR'S APPROVAL

BIOMETRIC RECOGNITION SYSTEM FOR UITM MELAKA STUDENT'S CAMPUS ENTRANCE

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This thesis was prepared under the supervision of the project supervisor, Dr. Shafaf Binti Ibrahim. It was submitted to the Faculty of Computer and Mathematical Sciences and was accepted in partial fulfilment of the requirements for the degree of Bachelor of Computer Science (Hons).

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STUDENT'S DECLARATION

I certify that this thesis and the project to which it refers is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline

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ABSTRACT

Biometric recognition is a viable and powerful improvement to any security systems. It varies uniquely from one person to another and each of them will never be the same as the other. Without it, anyone could lie or forge anything and acquire entrance onto restricted areas as long as the other party believes it. Such incidents could be seen to occur in UiTM Melaka Jasin Campus as it only requires showing a student card, no matter who's, for entrance into campus grounds. In order to overcome this slight but crucial problem, the Biometric Recognition System for UiTM Melaka Student's Campus Entrance is proposed. The system detects the facial structures and features between the student card image and it's holder thus determining whether it is the same person or not. It is likely that the holder is not the owner if the results come out below than 50% as the system has a facial features detection rate of 100%. The system utilized a combination of algorithms such as the Viola-Jones algorithm and SURF for facial structures and features detection. Upon testing, the system achieved 51.44% accuracy out of 100 testing images of 50 students.

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